Appl. No. 09/511,955
Amdt. dated August 10, 2004
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Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (cancelled)

Claim 11 (currently amended): A network switch comprising:

      means for establishing a communication session with an end device;

      means for identifying a first communication protocol of a plurality of data packets associated with the communication session;

      means for dynamically configuring a first port with the identified first communication protocol for a duration of the communication session, the first port being capable of being ~~dynamically configured~~ dynamically configurable with a different communication protocol upon expiration of the communication session;

      means for formatting a data packet based on the identified communication protocol; and

      a switching interface, coupled to the means for formatting, for forwarding the formatted data packet, the switching interface further comprising:

      means for identifying a second communication protocol, wherein the identified second communication protocol is different from the identified first communication protocol;

      means for dynamically configuring a second port with the identified second communication protocol;

      means for translating the formatted data packet into the second communication protocol; and

      means for transmitting the translated data packet via the second port.

Claim 12 (currently amended): The network switch of claim 11, wherein the identified first and second communication ~~protocol is a~~ protocols are layer two communication ~~protocol~~ protocols.

Claim 13 (currently amended): A method for forwarding data packets comprising:

establishing a communication session with an end device;

identifying a first communication protocol of a plurality of data packets associated with the communication session;

dynamically configuring a first port with the identified first communication protocol for a duration of the communication session, the first port being capable of being dynamically configured dynamically configurable with a different communication protocol upon expiration of the communication session;

formatting a data packet based on the identified communication protocol; and

forwarding the formatted data packet via the port.

receiving a data packet of the plurality of data packets associated with the communication session via the first port;

dynamically configuring a second port with a second communication protocol for a duration of the communication session, the second port being dynamically configurable with a communication protocol different from first communication protocol;

translating the data packet of the plurality of data packets associated with the communication session into the second communication protocol; and

(f) transmitting the translated data packet via the second port.

Claim 14 (currently amended): The method of claim 13, wherein the identified communication protocol is a layer two communication protocol and the second communication protocol is a layer two communication protocol.

Claim 15 (currently amended): A method for forwarding data packets comprising the steps of:

(a) dynamically establishing a communication session with an end device via an ingress port enabled with a first plurality of layer two protocols, the communication session having [[an]] a first associated layer two protocol selected from the first plurality of layer two protocols, wherein the establishing step further comprises the steps of:

(i) identifying the first layer two protocol associated with the communication session from the first plurality of layer two protocols enabled on the port;

Page 4 of 9

        (ii) linking the identified first layer two protocol with the ingress port for the duration of the communication session, the ingress port being capable of being linked with a different layer two protocol selected from the first plurality of layer two protocols upon expiration of the communication session;

(b) formatting a data packet based on the identified layer two protocol; and

(c) forwarding the formatted data packet via an egress port

(b) receiving a data packet associated with the communication session via the ingress port;

        (c) identifying an egress port enabled with a second plurality of layer two protocols;

        (d) linking a second layer two protocol of the second plurality of layer two protocols with the egress port, wherein the linked second layer two protocol is different from the linked first layer two protocol;

        (e) translating the data packet associated with the communication session into the linked second layer two protocol; and

        (f) transmitting the translated data packet via the egress port.

Claim 16 (currently amended): A data switch comprising:

        a first physical port adapted to sequentially receive a plurality of connection requests data packets, each connection request data packet characterized by one of a first plurality of layer two protocols;

        means for establishing a communication session for each connection request, comprising:

        means for identifying the layer two protocol of [[the]] each received connection request; [[and]]

        means for dynamically bonding the identified layer two protocol to the first physical port for each data packet;

        means for translating the plurality of data packets;

        a second physical port adapted to transmit the plurality of translated packets, each translated data packet characterized by one of a second plurality of layer two protocols;

        means for dynamically bonding the translated layer two protocol of the plurality of translated data packets to the second physical port; and

means for transmitting the bonded plurality of translated data packets via the second physical port;

Claim 17 (currently amended): The data switch of claim 16, wherein the first and second plurality of layer two protocols includes point-to-point protocol (PPP).

Claim 18 (currently amended): The data switch of claim 16, wherein the first and second plurality of layer two protocols includes point-to-point protocol over frame relay (PPP/FR).

Claim 19 (currently amended): The data switch of claim 16, wherein the first and second plurality of layer two protocols includes point-to-point protocol over Ethernet (PPOE) (PPOE).

Claim 20 (currently amended): The data switch of claim 16, wherein the first and second plurality of layer two protocols includes layer two tunnel protocol (L2TP).

Claim 21 (currently amended): The data switch of claim 16, wherein the first and second plurality of layer two protocols includes layer two forwarding (L2F).